IVMA
INSTITUTE OF VALUE MANAGEMENT AUSTRALIA
Ensuring better value for money

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VALUE FOR MONEY

Some thoughts on what it is, how it is measured, and how to evidence it

Value for money is a term used to assess whether or not an organisation has obtained the maximum benefit from the goods and services it both acquires and provides, within the resources available to it.

— Higher Education Funding Council for England

One of the tenets of value management is that value for money is achieved when a project delivers the highest level of required outputs for the least investment of resources.

"Least investment of resources" does not just relate to how much something costs to purchase. Rather, it considers both initial capital *and* ongoing recurrent expenditures over a representative operational life (total cost). For many public sector capital investments such as hospitals or schools, the standard evaluation period is 20 years (discrimination between options seldom varies for longer evaluation periods under steady state operations).

Australian Standard AS4183:2007 for value management provides a common language for discussing value and related concepts, as well as a consistent process for achieving value for money.

- **value** – an attribute of an entity determined by the perceived usefulness, benefit and importance
- **value for money** – a measure used for comparing alternatives based on the relationship between value and total cost.

A series of statements are developed for each of the three topics in the definition of value (perceived usefulness, benefit and importance) as they relate to the entity or subject that is being examined. Combined, they represent a value statement that knowledgeable stakeholders agree defines

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For a really clear YouTube explanation of the Principles of and Process to achieve "Value" and "Value for Money" head to VIDEO SPOTLIGHT on: ivma.org.au

Message from the President: *What about "values"?*

"What about 'values'?", asked my colleague. "Where do they fit in to value and value for money?"

I'm going to deal with this question now.

Is there a connection or relationship between these 'value terms'? Have 'values' anything to do with 'value for money'? They certainly have, and, in this article, I will deal with these questions.

When we speak of 'values' we usually mean those things that are particularly important to us; things we believe in, principles that guide our decisions and actions. When, for instance, I was preparing a paper to deliver at an overseas conference about a national school-refurbishment programme, I came across these 'values' that were to underpin the school's curriculum and teaching methods:

- Integrity
- Humility
- Respect for others
- Compassion
- Responsibility to contribute back to society

These 'values' need to permeate every aspect of the curriculum and teaching methods and we can see that, just by having the list identified, it is possible to ensure, through proactive and reactive questions and actions, that these values become inherent. I put the question to the conference – "Should these 'values' have any bearing *at all* on planning and design of the school refurbishment programme?" I argued strongly that they should.

Clearly, the buildings and physical infrastructure that make-up school campuses can both help and hinder the teaching / learning process.

There is no guarantee that better school facilities will directly correlate with improved performance, but there is no question as to the *potential* benefits.

Since the school refurbishment programme is intended to support the new curriculum, it is of vital importance that the underpinning values of that curriculum are properly understood by those planning and designing the building refurbishment – and that the buildings help those values to be realised. The challenge for planners and designers is to work-out how the refurbished facilities will be able to support the proposed curriculum and teaching methods which themselves are informed by the core values.

When seeking best 'value for money' outcomes from any situation, it is important, as I have explained in previous articles (as well as in the YouTube videos posted on the Institute's web site) that we first produce a Value Statement, make comparisons amongst various options as to the relative costs and performance of the options and finally to make a judgement as to which of those options delivers best 'value for money'. Value Management gives us a method to do this.

The Value Statement is developed from the Value Triangle that comprises three factors as shown in the diagram below.

Now consider for a moment those values that are listed earlier about school's curriculum development. If we were developing a Value Statement for the curriculum *itself*, then these values would be placed fairly and squarely in the bottom right hand triangle: they are important features and characteristics of the curriculum. If we were developing the Value Statement for the refurbishment of the facilities, however, then we must recognise that the facilities become, in part, *enablers* of the curriculum and, therefore, the important feature or characteristic would be "enabling the realisation of the core values". When we come to assess the various options and their respective costs, then we will do so based on the relative performance of the options in terms of their ability *to enable the realisation of core values* and the cost of so doing.

Whether we are dealing with a 'soft' subject such as the development of curriculum and teaching methods or a 'hard' subject such as the physical facilities to accommodate the teaching/learning process, the principles of establishing best 'value for money' remain the same. First we establish the value, then we make comparisons of options and make judgements. And in establishing the 'value', the associated 'values' play an important role.

To further illustrate this point, I will draw on an actual Value Management study that my colleague Ross Prestipino and I led in Singapore a few years ago when working on early planning for new facilities within a large private school.

In preparation for the Value Statement, we established a set of core values that was to guide all deliberations in the workshop. These core values were:

- Fostering the group strength and synergy of the schools
- Facilitating interaction among the students to enable character formation
- Developing church, school and community inter relationships
- Delivering effective Chaplaincy services
- Harnessing resources/skills to effectively serve the communities (within the school and beyond)
- Recognising and building on the school's traditions and heritage.

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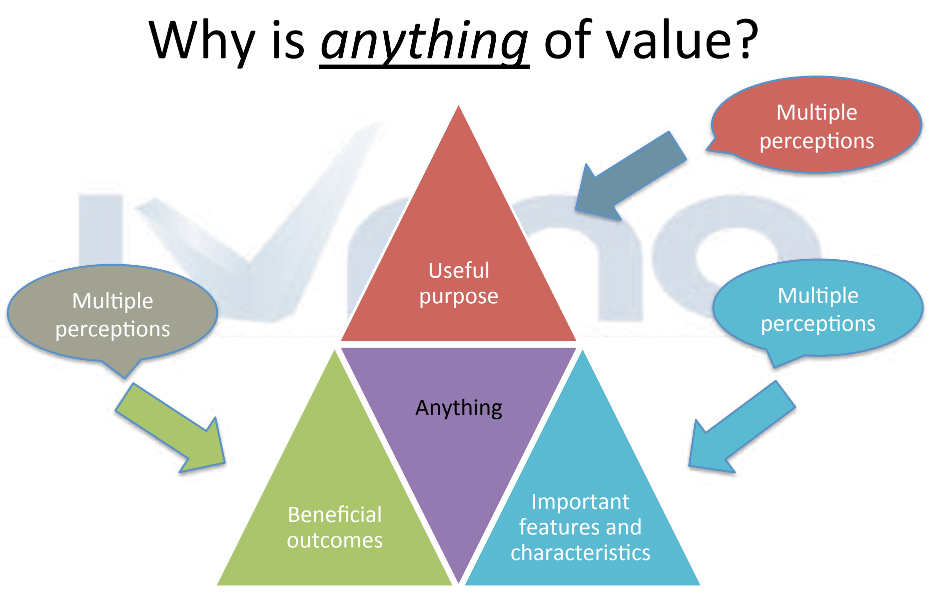

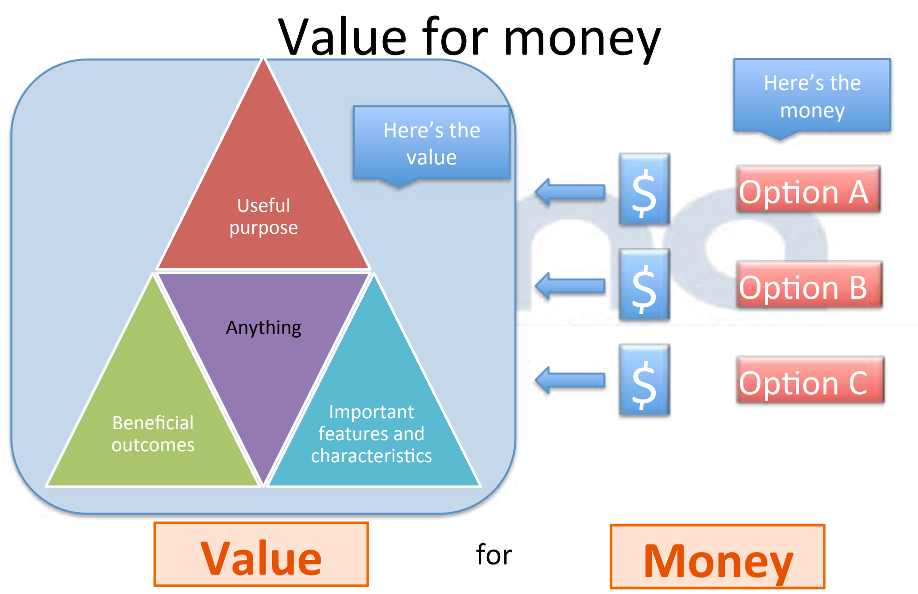

When we speak of 'values' we usually mean those things that are particularly important to us

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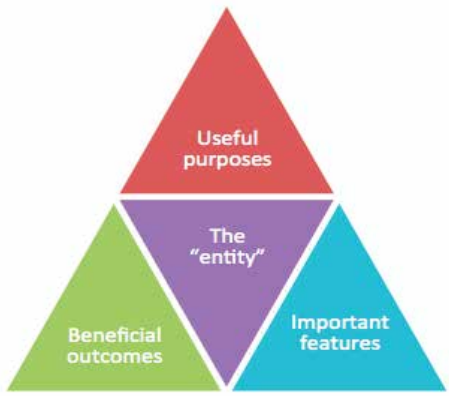
what the entity needs to do. This is demonstrated by the following diagram that appears in the Australian Standard that defines value for money.



The concept of "Value" as defined in AS 4183

The relative importance or strength of individual components of each value factor will be influenced by, amongst other things, the perspectives, experiences and expectations of those contributing to their development. One of the principal underpinnings of the value management process is that it works best with a group of representative stakeholders, working together to understand, contribute, define, develop and evaluate solutions.

The value statement is a **qualitative** expression of value.

A **quantitative** element is introduced when we talk about value for money.

So how do we combine the **qualitative** and the **quantitative** in a meaningful way?

Most for-profit organisations view investments from a financial perspective (think dollars into and out of an organisation as a reasonable definition of financial assessment).

Governments typically take a broader view than just the financial implications of a proposed investment that includes public benefit considerations as part of the decision-making process. Economic appraisal measures the quantitative costs and benefits at a whole-of-community level.

Economic considerations include both qualitative components (informed by the value statement) and quantitative components, some of which are directly measureable and some of which utilise proxy values to represent the impact on those affected.

Take the following example which is for a now-funded public monument refurbishment and extension that included education, interpretation and exhibition space.

A selection of the value statements relating to the project include:

- principal focus within the state for the type of facility under consideration
- reflection of historical Australian characteristics and values
- basis for education and exhibitions
- conservation and storage of historical collections
- opportunities for collaboration with similar facilities elsewhere.

The qualitative assessment utilised the following criteria and weightings:

- collocation 6
- suitability of space 4
- sustainability of solution 4
- compliance with requirements 3
- efficiency/flexibility of layout 3

Three development options were considered as well as the base case or status quo. A paired comparison approach was taken, with the following Weighted Option Scores:

- Base Case 11
- Option A 89
- Option B 100
- Option C 45

Within the accuracy of the paired comparison approach, Options A and B were deemed to be equally favoured from a qualitative viewpoint.

Capital and 20-year recurrent costs were:

	Capital Costs	Recurrent Costs
• Base Case	$7.0m	$25.2m
• Option A	$39.4m	$55.0m
• Option B	$42.4m	$58.5m
• Option C	$23.2m	$49.6m

Economic benefits were calculated for each option and included:

- residual value of development
- value to visitors of exhibitions.

Cost benefit analysis using standard Treasury parameters ranked the results in the same order as capital costs i.e. base case followed by Options C, B and A. The difficulty in this scenario was in quantifying intangible benefits associated with historical, cultural and heritage significance.

A cost effectiveness analysis was used to combine the intangible value with the quantified impacts.

Cost effectiveness analysis divides the Weighted Option Scores into the present value of the costs. The results completely reverse the ranking of options i.e. Options B, A, C and base case (think of the cost effectiveness analysis outcomes as the economic cost to achieve a unit of value, with **lower scores** representing better value than higher scores).

	Score
Base Case	2.29 ($25.2m / 11)
Option A	0.44 ($39.4m / 89)
Option B	0.42 ($42.4m / 100)
Option C	0.51 ($23.2m / 45)

Option B was the option that the stakeholder group selected to proceed.

Many business cases and investment decisions are directed towards the achievement of an agreed objective, with decision-making principally about the best value outcome (with all options implicitly framed to meet the objective).

An interesting and insightful alternative to objective-oriented decision-making is the Victorian Government's Investment Management Standard approach which explicitly seeks best value for money. Unlike typical business case processes which seek to fulfil an objective in the most cost-effective way, the IMS seeks to address a problem.

Costed options for addressing the defined problem situation are developed and evaluated under IMS processes. These range from a gold-standard option that addresses 100% of the problem to other options that partly (but not fully) address the problem.

Value comes into play in evaluating options against the degree to which they address the problem. For example, value is inherently better in an option that addresses 85% of the problem for 60% of the gold-standard cost, compared to 100% of the problem for 100% of the gold-standard cost. Cost effectiveness relativities for these two examples would be 0.7 versus 1.0 respectively.

We all perceive things differently, and value management provides a mechanism to agree explicit aspects of an entity.

Overlaying whole-of-life financial and economic techniques allows us to provide evidence to project stakeholders and to the wider community that value for money has been achieved.

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An earlier version of this article was published on LinkedIn on 27 May 2016

Value comes into play in evaluating options against the degree to which they address the problem.

Value Capture: the magic pudding for infrastructure?

The Federal Government has unveiled its Smart Cities Plan (SCP) which is focussed on a holistic initiative to develop Australia's cities.

This initiative incorporates infrastructure development, education, healthcare, business, housing and overall job creation in the consideration of projects and programs.

The SCP accepts that: *"While the opportunities have never been greater for our cities, congestion, poor access to jobs and services, reduced housing affordability and increasing pollution can challenge the quality of life they offer."*

The SCP is a welcome initiative particularly as Australia is the most urbanised nation on earth whose population is forecast to increase from 24 million to 40 million by 2050.

Large cities like Brisbane, Melbourne and Sydney expect a population increase of 1.6% per annum and smaller cities like Cairns, Darwin and Perth can expect to expand by 2% per annum.

Currently it would appear that there has been a significant slowdown in the provision of all infrastructure in Australia because there has been a (seasonally adjusted) decline of 34% in Engineering Construction in Australia over the past two years.

So how to pay for the SCP, that is the question? And here there are problems.

Australian Federal Government debt, (the cheapest form of debt at around 2.5% per annum at present) is increasing rapidly; mainly to cover **recurrent** spending – not investment in infrastructure of the future.

The government gross debt is forecast to rise to $425.7 billion this financial year, equivalent to 25.7% of gross domestic product (GDP) and in 2017-18 to $542 billion or 30% of GDP. The problem is that debt of around 30% of GDP is that the debt rating agencies start looking seriously at the quality of that gross debt when it reaches 30% of GDP.

In Australia's case this could possibly result in the downgrading of our 'triple A' rating which gives Australia low interest rates on our debt, which at todays advantageous rate still costs us $1.1 billion per month to service.

So if we need infrastructure we will more than ever require it to be financed by more expensive private financing from banks and superannuation funds. This will put even greater pressure on ensuring 'value for money' for the investment and maximising the funding inflow when the infrastructure is in its operation and maintenance phase.

Added to the traditional funding options is a further one that is hardly new but has seldom been used in Australia: Value Capture.

The principle behind Value Capture is that it gathers money from beneficiaries in public infrastructure that otherwise would not be collected over the life of the operation of the infrastructure. Value Capture has been used chiefly in the development of transport infrastructure a nd related developments but has also been used in urban renewal projects including environmental remediation of contaminated sites, property acquisition and site consolidation, rehabilitation and renovation of historic buildings and improvement of existing 'common user' infrastructure.

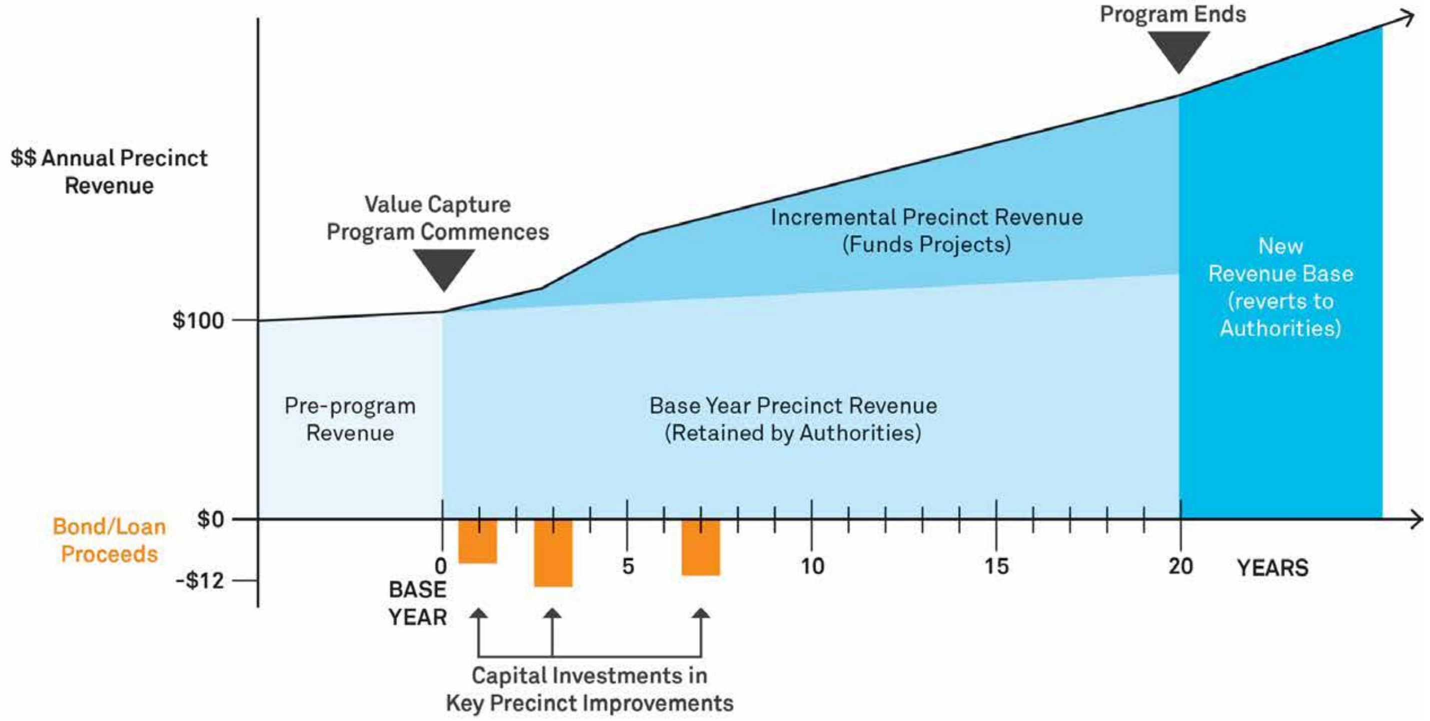
There is a wide variety of categories of potential Value Capture, not all of which would be used on any one project. The following are potential categories. Methods used on any particular project would be those that are most applicable financially and acceptable to the community.

1. Retail sales taxes (GST)
2. Transfer (stamp) duties
3. Payroll taxes
4. Property taxes
5. Council rates
6. Section 94 development contributions in NSW
7. Voluntary Planning Agreements
8. Special rates
9. Sale and/or lease of air rights
10. Parking levies
11. Hotel taxes
12. Capital Gains Tax (CGT)
13. Property development

The method by which Value Capture is utilised is demonstrated in **Figure 1**. Fundamentally the revenue from the Value Capture initiatives is hypothecated to the project or program itself for the duration of the financial payback period – usually 20 years but it could be longer on major projects or on projects that are phased over an extended time period. At the completion of the financing period the increased revenue reverts to the relevant authority in perpetuity.

It has been estimated that the use of Value Capture in Australian projects and programs could contribute between 10% and 30% of directly related infrastructure costs.

Value Capture funding model



"VALUE CAPTURE ROADMAP" – AECOM – JUNE 2015

To date Value Capture has hardly been used in Australia despite our demonstrated need for significant infrastructure investment. It was however used in the funding related to the construction of the Sydney Harbour Bridge and for the creation of the well-used Pitt Street Mall in Sydney. More recently, Stage 1 of the $1 billion Gold Coast Rapid Transit light rail was partially funded by an improvement charge levied on ratepayers.

Overseas it is a different story. In the USA Value Capture has been used on a variety of projects since the 1960s. The Montreal Metro and the Hong Kong Mass Transit Rail were both substantially funded by purchasing land around the stations at pre-rail prices then selling or leasing the land at substantially higher value when the rail system was operating. Recently Denver Union Station, the centre of the city's light rail network, used Value Capture to cover 30% of the project's capital cost.

Current major projects using Value Capture to contribute to funding are the $30 billion Crossrail project in London and the $40 billion major upgrade to the Paris Metro system.

So how could Value Capture be implemented in Australia?

The SCP incorporates a UK process that commenced in 2012, City Deals, which seeks to shift government *"delivery of specific services to a citizen centric approach. This involves closer interaction between citizen and service providers – a genuine two-way process, which is more personalised; a much stronger recognition of, and response to, the strategic interdependencies of different services; and the drive for innovation – particularly digital delivery"*.

This 'ground up' approach is focussed on identifying what the community actually values and proceeds to integrate that into major projects and programs. If what the community most values is incorporated into projects, then Value Capture is most likely to succeed by achieving maximum return on the investment.

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Value Capture: the magic pudding for infrastructure?

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For example in considering a transport interchange, the community might propose that it incorporate renewable energy to power a certain percentage of commercial and retail development with co-located medical and education services and relaxation space plus incentives to employ apprentices and young people in their first job.

There have however been challenges in implementing the Smart Cities approach in the UK, including:

- The problems of getting all levels of government to work together to achieve the community identified objectives
- The possibility of departmental silos within government inhibiting strategic planning
- Ensuring that scarce public resources are invested wisely.

For example the Manchester City Deal, the first of 20 City Deals, incorporated transport infrastructure, business growth, apprenticeships, transport expansion, housing, low emissions, reduction of greenhouse gas emissions by 48% by 2020.

However, it took two years to get the financing deal agreed between 10 local councils.

An example of an aspect where Value Capture could be a 'game changer' is to facilitate the implementation of 'shared mobility'. This is the concept of the provision of electric, autonomous and shared vehicles which will be summoned to a particular location by smartphone. In the past few years software giant Apple has spent more on research and development into autonomous car and related services than it did on the development of the Apple Watch, iPad and iPhone combined.

The autonomous car market is forecast to be worth $US2.6 trillion by 2030 but its impact on urban infrastructure and transport infrastructure and operations could be much larger.

So Value Capture may not be the 'magic pudding' but its use can drive a more user-centered approach to delivering and operating infrastructure and services and may lead to a more equitable distribution of costs and benefit of the development.

Clearly, if driven by community values, Value Capture has the potential to deliver significant community, economic and financial benefits.

It is also clear that independent '**value centered**' management of the process is critical to integrating a mass of creative ideas and subsequent evaluation if the long-term benefits of this approach are to be realised.

John Bushell
Director, IVMA
Chair, Publications and Events Committee, IVMA

Message from the President: *What about "values"?*

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These core values formed the foundation of all subsequent discussions including producing the value triangle for the new facilities.

By the end of the two day exercise, the group had accomplished all that it set out to do. In particular, it had:

- Developed a vision and mission statement
- Established core Values to underpin planning and design
- Developed project objectives to guide the designers
- Established a set of guiding principles relating to:
  - Land and Facilities
  - Use of buildings
  - Heritage and tradition
  - Traffic flow
  - Networking/bonding and a sense of belonging
- Developed proposals to deliver best value for money
- Developed an Action Plan to progress the project forward from the workshop.

All of this flowed from the initial activity of establishing the core values.

Here are some comments from participants in the workshop that I hope will reinforce the benefits of undertaking exercises such as this – commencing with core values.

"The Value Management workshop allowed us to see the different concerns and points of views of the various stakeholders. It was an insightful experience. Out of the workshop emerged broad areas that could help focus future dialogue and discussion to help the project to proceed forward".

"I greatly appreciated the opportunity for everyone to be frank about their hopes and their fears regarding this project. It was very useful hearing other people's perspective about developments. At the same time, the structure and discipline imposed by the external facilitator was very helpful and brought things together."

"The Workshop served to identify the conflicting requirements of some of the stakeholders; decisions taken by some parties that had not been clearly communicated to others. False assumptions were exposed. This will result in a much more effective school when all the issues are resolved".

After reading the draft of this article, Ross wrote to me with a further example of the explicit use of 'values' in a Value Management study. Ross said, "*Your article reminds me of some work that I did with Mercy Hospital in Melbourne. Bob Andrews and I were involved in a series of VM/VE and planning workshops of their hospital campus co-habitation with the Austin tertiary public hospital. At the beginning of every pre-workshop and/or planning meeting (and also at each workshop), the most senior Mercy Hospital representative would read out the values of Mercy Care and reiterate to the group assembled that all considerations at the meeting/workshop need to be viewed through this prism. It was a powerful opening to each session.*"

So there we have it. There certainly is a relationship amongst our various 'value' terms such as 'value', 'value for money' and 'values'. In seeking best 'value for money', core values play an important role.

Dr Roy Barton
President

I greatly appreciated the opportunity for everyone to be frank about their hopes and their fears regarding this project.